a polymer selected from the group consisting of a poly(α -hydroxy acid), a polyhydroxy butyric acid, a polycaprolactone, a polyorthoester, a polyanhydride, and a polycyanoacrylate; and

a cationic or anionic detergent.

2. (Amended) The microparticle of claim 1, further comprising a first biologically active macromolecule adsorbed on the surface thereof, wherein the first biologically active macromolecule is at least one member selected from the group consisting of a polypeptide, a polynucleotide, a polynucleoside, an antigen, a pharmaceutical, a hormone, an enzyme, a transcription or translation mediator, an intermediate in a metabolic pathway, an immunomodulator, and an adjuvant.

3. (Amended) The microparticle of claim 2, further comprising a second biologically active macromolecule encapsulated within said microparticle, wherein the second biologically active macromolecule is at least one member selected from the group consisting of a polypeptide, a polynucleotide, a polynucleoside, an antigen, a pharmaceutical, a hormone, an enzyme, a transcription or translation mediator, an intermediate in a metabolic pathway, an immunomodulator, and an adjuvant.

9. (Amended) The microparticle of any of claims 2-7, wherein the first biologically active macromolecule is an antigen selected from the group consisting of gp120, gp160, p24gag, p55gag, and Influenza A hemagglutinin antigen.

10. (Amended) The microparticle of any of claims2-7, wherein the first biologically active macromolecule is a polynucleotide which encodes gp120.

11. (Amended) The microparticle of any of claims 3-7, 9 and 10, wherein the second biologically active macromolecule is an adjuvant.

12. (Amended) The microparticle of claim 11, wherein the adjuvant is an aluminum salt.

13. (Amended) A microparticle composition comprising a microparticle of any of claims 1-7 and 9-12 and a pharmaceutically acceptable excipient.

14. (Amended) A microparticle composition comprising a microparticle according to any of claims 1-7, 9, 10 and 13, further comprising an adjuvant.

17. (Amended) A method of producing a microparticle having an adsorbent surface, said method comprising the steps of:
(a) dispersing a mixture of a polymer solution and a cationic or anionic detergent, wherein the polymer solution comprises a polymer selected from the group consisting of a poly(α -hydroxy acid), a polyhydroxy butyric acid, a polycaprolactone, a polyorthoester, a polyanhydride, and a polycyanoacrylate, wherein the polymer is present at a concentration of about 1% to about 30% in an organic solvent, and wherein the detergent is present in the mixture at a weight to weight detergent to polymer ratio of from about 0.00001:1 to about 0.1:1; and

(b) removing the organic solvent from the emulsion.

21. (Amended) The method of any of claims 17-19 wherein the detergent is present at a weight to weight detergent to polymer ratio of from about 0.0001:1 to about 0.01:1.

22. (Amended) The method of any of claims 17-19 wherein the detergent is present at a weight to weight detergent to polymer ratio of from about 0.001:1 to about 0.01:1.

23. (Amended) The method of any of claims 17-19 wherein the detergent is present at a weight to weight detergent to polymer ratio of from about 0.005:1 to about 0.01:1.

24. (Amended) The method of any of claims 17-19 and 21-23, wherein the microparticle comprises a poly(α -hydroxy acid) selected from the group consisting of poly(L-lactide), poly(D,L-lactide) and poly(D,L-lactide-co-glycolide).

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27. (Amended) A method of producing a microparticle having an adsorbent surface to which a biologically active macromolecule has been adsorbed, said method comprising the steps of:

(a) emulsifying a mixture of a polymer solution and a cationic or anionic detergent to form an emulsion, wherein the polymer solution comprises a polymer selected from the group consisting of a poly(α -hydroxy acid), a polyhydroxy butyric acid, a polycaprolactone, a polyorthoester, a polyanhydride, and a polycyanoacrylate, wherein the polymer is present at a concentration of about 1% to about 30% in an organic solvent, and wherein the detergent is present in the mixture at a weight to weight detergent to polymer ratio of from about 0.00001:1 to about 0.1:1;

(b) removing the organic solvent from the emulsion, to form said microparticle having the adsorbent surface; and

(c) adsorbing the macromolecule to the surface of the microparticle.

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29. (Amended) The method of any of claims 27-28, wherein the macromolecule is an antigen selected from the group consisting of gp120, gp160, p24gag, p55gag and Influenza A hemagglutinin antigen.

A7

34. (Amended) A microparticle made according to the method of any of claims 17-19 and 21-33.

A8

36. (Amended) A method of producing a microparticle composition comprising a microparticle having an adsorbent surface to which a biologically active macromolecule has been adsorbed, said method comprising the steps of:

(a) emulsifying a mixture of a polymer solution and a cationic or anionic detergent to form an emulsion, wherein the polymer solution comprises a polymer selected from the group consisting of a poly(α -hydroxy acid), a polyhydroxy butyric acid, a polycaprolactone, a polyorthoester, a polyanhydride, and a polycyanoacrylate, wherein the polymer is present at a concentration of about 1% to about 30% in an organic solvent, and wherein the detergent is present at a weight to weight detergent to polymer ratio of from about 0.00001:1 to about 0.1:1;

(b) removing the organic solvent from the emulsion, to form said microparticle having the adsorbent surface;

(c) adsorbing the macromolecule to the surface of the microparticle; and

(d) combining the microparticle having the adsorbed macromolecule from step (c) with a pharmaceutically acceptable excipient to form said microparticle composition.

43. (Amended) A microparticle having an adsorbent surface, said microparticle comprising:

a biodegradable polymer; and

a cationic or anionic detergent.

44. (Amended) The microparticle of claim 43, further comprising a first biologically active macromolecule adsorbed on the surface thereof, wherein the first biologically active macromolecule is at least one member selected from the group consisting of a polypeptide, a polynucleotide, a polynucleoside, an antigen, a pharmaceutical, a hormone, an enzyme, a transcription or translation mediator, an intermediate in a metabolic pathway, an immunomodulator, and an adjuvant.

Please add new claims 52-68 as follows:

52. (Newly Added) The microparticle of claim 7, wherein the first biologically active macromolecule is a polypeptide.

53. (Newly Added) The microparticle of claim 52, wherein the first biologically active macromolecule is a polypeptide antigen selected from the group consisting of HIV antigens, hepatitis C virus antigens, and influenza A virus antigens.

54. (Newly Added) The microparticle of claim 6, wherein the first biologically active macromolecule is a polynucleotide.

55. (Newly Added) The microparticle of claim 54, wherein the polynucleotide encodes an antigen.

56. (Newly Added) The microparticle of claim 55, wherein the polynucleotide encoding the antigen is a plasmid DNA molecule.

57. (Newly Added) The microparticle of claim 55, wherein the antigen is selected from the group consisting of HIV antigens, hepatitis C virus antigens, and influenza A virus antigens.

58. (Newly Added) The microparticle of claim 6, wherein the cationic detergent is hexadecyltrimethylammonium bromide.

59. (Newly Added) The microparticle of claim 7, wherein the anionic detergent is sodium dodecyl sulfate.

60. (Newly Added) The method of claim 27, wherein the detergent is an anionic detergent.

61. (Newly Added) The method of claim 60, wherein the macromolecule is a polypeptide.

62. (Newly Added) The method of claim 61, wherein the polypeptide is a polypeptide antigen selected from the group consisting of HIV antigens, hepatitis C virus antigens, and influenza A virus antigens.

63. (Newly Added) The method of claim 27, wherein the detergent is a cationic detergent.

64. (Newly Added) The method of claim 63, wherein the macromolecule is a polynucleotide.

65. (Newly Added) The method of claim 64, wherein the polynucleotide encodes an antigen.

66. (Newly Added) The method of claim 65, wherein the polynucleotide encoding the antigen is plasmid DNA.

67. (Newly Added) The method of claim 65, wherein the antigen is selected from the group consisting of HIV antigens, hepatitis C virus antigens, and influenza A virus antigens.

68. (Newly Added) Use of a microparticle composition of claim 51, wherein said immune response comprises a CTL immune response.

Please cancel claims 8 and 20 without prejudice or disclaimer.

STATUS OF CLAIMS:

Claims 1-7, 9-19 and 21-68 are pending herein.

Claims 52-68 have been added, and claims 8 and 20 have been cancelled without prejudice or disclaimer herein.

REMARKS

A. Claim Amendments

In view of the above amendment, claims 1-7, 9-19 and 21-68 are presently pending.

A separate sheet entitled "**Version with Markings to Show Changes Made**" is provided to illustrate the amendments made to claims 1-3, 9-14, 17, 21-24, 27, 29, 34, 36, 43 and 44, the cancellation of claims 8 and 20, and the addition of claims 52-68.